

Notice of Allowability

Application No.

10/067,317

Examiner

Pamela E. Perkins

Applicant(s)

KU ET AL.

Art Unit

2822

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 15 June 2005.
2. ☒ The allowed claim(s) is/are 1,4-9,11-16 and 18-23.
3. ☒ The drawings filed on 07 February 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

AMIR ZAREBIAN
EXAMINER

DETAILED ACTION

This office action is in response to the filing of the amendment on 15 June 2005. Claims 1, 4-9, 11-16 and 18-23 are pending; claims 2, 3, 10 and 17 have been canceled.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In claim 4, line 1, "3" has been deleted and -1—has been inserted therefore.

In claim 6, line 1, "3" has been deleted and -1—has been inserted therefore.

In claim 8, line 1, "3" has been deleted and -1—has been inserted therefore.

In claim 9, line 1, "2" has been deleted and -1—has been inserted therefore.

Allowable Subject Matter

Claims 1, 4-9, 11-16 and 18-23 are allowed.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance: prior art does not anticipate, teach, or suggest an integrated circuit where a circuit function block has

a predetermined circuit layout; and an inter-digitated capacitance structure comprising at least one metal plate and a plurality of inter-digitated metal fingers on top of the circuit function block, wherein a plurality of de-coupling capacitances are formed between the inter-digitated capacitance structure a first metal layer and a second metal layer.

For example, Grzyb et al. (5,656,834) disclose a method of forming an integrated circuit where a circuit function block is formed on an IC chip; and forming a decoupling capacitor in an area above the circuit function block. However, Grzyb et al. do not disclose, anticipate, teach, or suggest forming a plurality of de-coupling capacitances between the inter-digitated capacitance structure a first metal layer and a second metal layer.

Appel (6,653,681) discloses an integrated circuit where a circuit function block has a predetermined circuit layout; and an inter-digitated capacitance structure comprising at least one metal plate and a plurality of inter-digitated metal fingers on top of the circuit function block. However, Appel does not disclose, anticipate, teach or suggest forming a plurality of de-coupling capacitances between the inter-digitated capacitance structure a first metal layer and a second metal layer.

Grabbe (4,410,905) discloses an integrated circuit where a circuit function block (19) has a predetermined circuit layout; and an inter-digitated capacitance structure comprising at least one metal plate and a plurality of inter-digitated metal fingers (21/23) on top of the circuit function block (31), wherein a plurality of de-coupling capacitances (31) are formed (col. 2, lines 18-59). However, Appel does not disclose, anticipate,

teach or suggest forming a plurality of de-coupling capacitances between the inter-digitated capacitance structure a first metal layer and a second metal layer.

The prior art made of record in this action does not anticipate, teach, or suggest an integrated circuit where a circuit function block has a predetermined circuit layout; and an inter-digitated capacitance structure comprising at least one metal plate and a plurality of inter-digitated metal fingers on top of the circuit function block, wherein a plurality of de-coupling capacitances are formed between the inter-digitated capacitance structure a first metal layer and a second metal layer.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

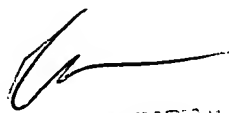
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pamela E. Perkins whose telephone number is (571) 272-1840. The examiner can normally be reached on Monday thru Friday, 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian can be reached on (571) 272-1852. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PEP


ALAN ZARADAN
EXAMINER